

AMENDMENTS TO THE CLAIMS

Claims 1-35. (Canceled)

36. (Currently Amended) A method of designing a sigma-delta-modulator comprising a plurality of cascaded integrators and a comparator for signal ~~quantification~~quantization, said integrators and comparator defining a signal path, the method comprising the steps of:

- (a) providing an input signal to an input of the modulator,
 - (b) determining signal amplitude at one or more outputs of the integrators,
- and
- (c) adjusting one or more signal gains along the path so that signal amplitude increases progressively along the signal path away from the input.

37. (Previously Presented) A method according to claim 36, adjusting signal gains on the two cascaded integrators immediately after the input, said two integrators being subject to adjustment in step (c).

38. (Previously Presented) A method according to claim 37, wherein signal amplitudes arising at outputs of said two cascaded integrators are less than 20% of a full scale output from said comparator.

39. (Previously Presented) A method according to claim 36, wherein the signal gains are adjusted by adjusting gains of said integrators.

40. (Previously Presented) A method according to claim 39, wherein the gains of said integrators are adjusted by adjusting feedback therearound.

41. (Currently Amended) A sigma-delta-modulator including a plurality of cascaded integrators and a comparator for signal quantization, said integrators and comparator defining a signal path, the sigma-delta-modulator being designed according to the method of claim 36the method including,

- (a) providing an input signal to an input of the modulator,
- (b) determining signal amplitude at one or more outputs of the integrators, and
- (c) adjusting one or more signal gains along the path so that signal amplitude increases progressively along the signal path away from the input.

42. (Previously Presented) A method of controlling a sigma-delta-modulator comprising a plurality of cascaded integrators, a comparator for signal quantification, and controlling means, the method comprising the steps of:

- monitoring the signal swing of an output signal of at least one of the plurality of integrators and determining if the monitored signal swing exceeds a predefined threshold value, and
 - in case the monitored signal swing exceeds the predefined threshold value, using the controlling means to reduce the output signal by a predefined factor or value so as to bring the monitored signal swing below the predefined threshold value, the predefined threshold value being associated with a maximum stable input amplitude of the sigma-delta-modulator.

43. (Previously Presented) A microphone module comprising a sigma-delta-modulator according to claim 41.

44. (Previously Presented) A mobile unit comprising a microphone module according to claim 43, wherein the mobile unit is selected from the group consisting of hearing aids, cellular phones, and head-sets.

45. (Previously Presented) A mobile unit comprising a sigma-delta-modulator according to claim 41, wherein the mobile unit is selected from the group consisting of hearing aids, cellular phones, and head-sets.